

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 176-282 are pending in the application, with claims 176, 210, 232, 249, 250, 251, 253, 254, 255, 263, 274, 275, 276, 277, 278, 279 and 280 being the independent claims. Claims 89-175 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Claims 176-282 are sought to be added. No new matter is added by way of these amendments. It is respectfully requested that the amendments be entered and considered.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

I. Support for New Claims

Support for new claims 176-282 can be found throughout the specification, for example, at page 5, lines 6-10, at page 6, lines 21-26, at page 7, lines 11-16, at page 15, lines 6-18, at page 23, lines 14-29, at page 25, line 16 through page 26, line 4, at page 26, lines 13-22, at page 30, line 18 through page 32, line 11, at page 32, line 26 through page 33, line 14, and in the claims as originally filed.

II. Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner has withdrawn the rejection of claims 160 and 168 under 35 U.S.C. § 112, second paragraph. *See* Office Action, page 2.

III. Claim Rejections Under 35 U.S.C. § 102

Claims 89-103, 105-111, 117-127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 151, 153, 157-159, 161-164, 166, 167, 169-172 and 174 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,405,772 to Ponting ("Ponting"). *See* Office Action, page 3. Applicants respectfully traverse this rejection.

An anticipation rejection under 35 USC § 102 requires a showing that each element of a claim is found in a single reference, practice, or device. *See In re Donohue*, 766 F.2d 531, 226 USPQ 619, 621 (Fed. Cir. 1985). Claims 89-103, 105-111, 117-127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 151, 153, 157-159, 161-164, 166, 167, 169-172 and 174 have been cancelled. Applicants submit that Ponting does not teach all of the elements of any of the currently presented claims and therefore does not anticipate any of the currently presented claims.

The currently presented claims comprise or include the use of a cell culture medium that is "capable of preventing differentiation of the embryonic stem cells during expansion of the embryonic stem cells." Thus, the present claims require the cell culture medium to *prevent cell differentiation*.

Ponting, by contrast, refers to a cell culture medium for proliferation and development of cells. *See, e.g.,* Ponting, Abstract. That is, the cell culture medium of Ponting *causes cell differentiation*.

Since Ponting does not teach a cell culture medium that is capable of preventing differentiation of embryonic stem cells during expansion of the embryonic stem cells, Ponting cannot and does not anticipate the currently presented claims. Applicants respectfully request that the rejection under 35 U.S.C. § 102 be reconsidered and withdrawn in view of the claim amendments presented above.

IV. Claim Rejections Under 35 U.S.C. § 103

Claims 89-175 were rejected under 35 U.S.C. § 103(a) as being obvious over Ponting and the GIBCO BRL Products and Reference Guide (1997) ("GIBCO reference"). *See* Office Action, page 5. Applicants respectfully traverse this rejection.

A *prima facie* case of obviousness cannot be established unless all of the claim elements are taught or suggested by the cited references. *See In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974); *see also In re Glaug*, 283 F.3d 1335, 1341-42 (Fed. Cir. 2002); *In re Rijckaert*, 9 F.3d 1531, 1533 (Fed. Cir. 1993). Since not all elements of the currently presented claims are taught or suggested by the cited references, a *prima facie* case of obviousness cannot be established with respect to the currently presented claims.

Claims 89-175 have been cancelled. As noted above, the currently presented claims comprise or include the use of a cell culture medium that is "capable of preventing

differentiation of the embryonic stem cells during expansion of the embryonic stem cells." Neither Ponting nor the GIBCO reference teach or suggest a culture medium that prevents cell differentiation.

As explained above, Ponting refers to a cell culture medium for proliferation and development of cells. There is no suggestion that the medium of Ponting could or should be modified to produce a culture medium that prevents cell differentiation. In Ponting, the words "proliferation" or "growth" are always used in conjunction with the words "development" or "differentiation" in discussing the medium used in this reference. *See, e.g.,* Ponting, Abstract, and claim 1. In Ponting, the terms "growth" and "proliferation" are synonymous, *see* column 9, lines 7-8; and the terms "developed" and "differentiated" are synonymous. *See* Ponting, column 7, line 62. Moreover, the title of Ponting is "Medium for Long-Term Proliferation and Development of Cells". Thus, Ponting does not teach or suggest a cell culture medium capable of preventing differentiation of embryonic stem cells during expansion of the embryonic stem cells.

Since not all elements of the currently presented claims are taught or suggested by the cited references, a *prima facie* case of obviousness cannot be established. Applicants respectfully request that the rejection under 35 U.S.C. § 103 be reconsidered and withdrawn in view of the claim amendments presented above.


Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Frank R. Cottingham
Attorney for Applicants
Registration No. 50,437

Date: NOV. 17, 2004

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600